Community Sustainability

Briefing Paper

City Council Community Sustainability Goal Committee

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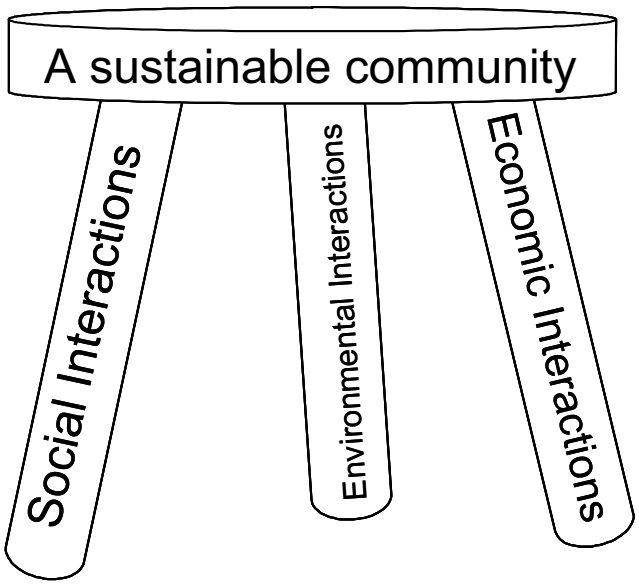
What is Sustainability?

The World Commission on Environment and Development (1987) presented a vision of sustainability as a community supported by three legs, the most stable of all designs. In the forefront are social interactions. These are most important because everything takes place within the context of society. All environmental impacts and economic interactions are the result of social values. Then there are economic interactions. These are systems of social interactions based on money. They can be adjusted by other social systems like community values, laws, ethics and culture. Lastly, all of these interactions take place within the environment. Environmental impacts occur because the economic cost of prevention is judged to be too great under the values and priorities of the community. Even if all other interactions take place indoors people are still breathing air, drinking water and producing waste so they are connected to the environment.



Sustainability is a Process

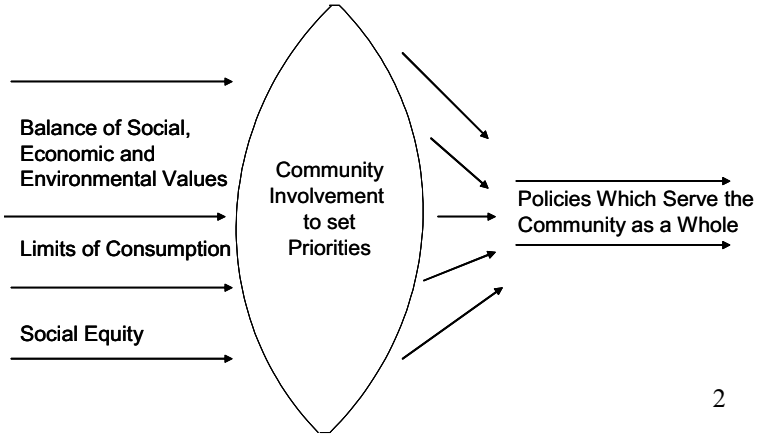
Sustainability is an established process. It has a scientific foundation and principles. The outcome of the process is economic vitality, social health and environmental quality. The sustainability process is the integration of all three, based on the values and priorities of the community.

The sustainability process was established in 1987 with the United Nations report *Our Common Future*. Also called the "*Brundtland Report*," it says that our society is in trouble (World Commission on Environment and Development 1987) and that every problem - economic, social or environmental - was worse if you live in a city because of the concentration of people (WCED 1987).

What makes it worse in the city is that which makes the city different. Odum (1989) said the environment was divided into three types: natural, cultivated and fabricated. Natural environments are self regulating, they can take care of themselves. Cultivated environments are managed and they mostly take care of themselves. Fabricated environments are cities. They have to be planned and have every aspect of their activity regulated. Most importantly, they have to be supplied with resources.

That's why problems are worse in the city. All of the problems the WCED (1987) identified are about supplying the cities with resources and resources aren't unlimited. Choices have to be made. Making those choices is part of the sustainability process.

Some of the best scientists and policy makers of the day worked on *Our Common Future*. Their work inspired others to look at the ideas expressed in the report and embrace them. The ideas have been incorporated into international, national and local policy world wide. The federal Departments of State, Commerce, Interior and Agriculture all have sustainability initiatives. The federal government has guides to the sustainability process. The best are from the EPA (2005b) and the Department of



Energy (2005). They all emphasize the principles from *Our Common Future*: long term planning; community involvement to set priorities; balance of social, economic and environmental values; developing policies which serve the community as a whole; social equity, and limits of consumption. The idea is that community involvement is like a lens. It focuses the values of the community into polices. These policies serve the community as a whole, now and 25-50 years into the future.

Social equity is a critical concept to sustainability. The WCED's definition of sustainable development - meeting the needs of the present without compromising the ability of future generations to meet their own needs - must be met for all individuals, not just those that can afford the cost of meeting them. Access to food, water, medical attention, justice, government, education, and housing are all considered basic human rights. The message of equity in social issues drives the environmental and economic ones.

Inequity creates social, environmental and economic instability which are counter to the sustainability process. Much of the indigenous environmental damage in the third world comes from the efforts of the poor to survive and to compete economically (WCED 1987). For example, the living conditions of the poor create an ideal incubator for disease (WCED 1987) which can spread around the world. The occurrence of a pandemic such as the Bird Flu will create significant economic and environmental impacts as it spreads around the world. This could create a local public health crisis even in industrialized nations. Addressing the issue will save these costs, as well as relieve the instability it creates.

> *What is required is a new approach in which all nations aim at a type of development that integrates production with resource conservation and enhancement and that links both to the provision for all of an adequate livelihood base and an equitable access to resources.*(WCED 1987)

The Sustainability process is a method of managing our society to achieve policies that serve the community (WCED 1987), not the other way around. The sustainability process balances inputs and outputs. The community decides what it wants to do that increases inputs and what it wants to do that decreases outputs. These are community lifestyle choices. They are long-term changes which will help the community reach its goals. Since the community has to make the changes, only it can decide what goals it wants to focus on, what it will take to reach them and allocate resources accordingly.

Putting the Process into Action

Each community must prioritize its own social, economic, and environmental issues (EPA 2005a). How each community does that is based on that community's values. Each community will take a path that works for it (DOE 2005). The community must be involved in the sustainability process. Involvement is the key to addressing inequity. The changes that the community makes will need consensus (Lachman 1997). Making the process work will call for cooperation and forming coalitions. The process will help build an infrastructure to work across the boundaries of traditional community issues.

Finding out what priorities a community has is a process of its own (EPA 2005b). It is a process of outreach and inclusion of all of the different stakeholders and it must include ALL stakeholders. If any group is left out, an inequity is created. This outreach widens the view of community priorities (EPA 2005a). For example, if public health protection from a bird flu pandemic is a community value and not everyone has equal access to health care, then the community may choose to allocate resources to address this inequity.

Outreach and inclusion in the process is not easy. It is difficult to reach consensus and to include all stakeholders. *The Community Visioning and Strategic Planning Handbook* explains why. To optimize

the process, everyone has to buy in to the vision, but 15% of the stakeholders won't agree to play a part and up to 10% won't show up (Okubo, 1996). It can also be expensive to run a community process.

Many communities are not fully there yet. For example, Ann Arbor, MI, appointed the Environmental Commission responsible for setting the community priorities (Ann Arbor City Council, 2000). Eugene, OR, appointed city staff (City Council of the City of Eugene, 2000). Berkeley, CA, has done the outreach. They produced a model report. It covers social, economic and environmental issues in detail (ACWMA, et al. 2003), and the results are clear. The City of Berkeley has a sustainable development office, a green government initiative, and an eco-business program. None of the other Boulder peer cities currently do. When the community is engaged on what the priorities are, resources are more readily available to make them a reality.

Linking Production, Conservation and Equity

The WCED's first condition of the sustainability process was to address inequities (WCED 1987). The poor have fewer options to address environmental degradation because those options are usually more costly. The WCED stipulated that it is not the poor that are responsible for environmental destruction; it is poverty (WCED, 1987). The impact of poverty on the environment in areas like the Sudan, the Congo and Brazil is clear. It is the poor that live on the land. It is the poor that degrade it by clearcutting and grazing in an effort to survive. For the urban poor in industrialized nations they don't have this option. Because they are removed from the land, their environmental impact is indirect, but is still there.

Those who can afford to make the choice also have an impact. While the poor in the Sudan, Congo and Brazil cut trees to survive, consumers around the world buy products from those trees and degrade the environment on a larger scale. Purchases made by the poor are often made on the basis of economic cost, not environmental cost. Green products usually cost more, so the poor are more likely to use the products which cost less. The vehicles which are older and tend to have greater emissions problems are more affordable. The choice is usually transportation or not, rather than greater or lesser impact on the environment. Those driving less fuel efficient vehicles when they can afford other options are making a choice about the environment. It is possible to pay more for green power. However, the poor may have trouble paying for the power they need in the first place.

Once community priorities are set, indicators are identified to show if the policies are working. Communities already use indicators to develop and measure policy. Usually these are single measure indicators, such as new business starts or graduation rates. Hart (1999) makes a distinction between these and sustainability indicators. Sustainability indicators are linked to issues of social health, economic vitality and environmental quality.

Recycling is a good indicator for that reason. It is linked to social values by the level of participation. It is linked to economics through the use of recycled materials in local products. If the community has a high recycling rate, it indicates two things: First, that it values the environment. Second, that conservation of community materials is conserving a form of resource wealth. This is an economic indicator. If businesses use a lot of recycled materials, they do two things: First, they show they value the environment and, second, they are keeping money in the local economy.

The percentage a community recycles alone isn't all the information policy makers need to know. They also need to know the value of the materials recycled. This is a measure of how much wealth is returned to the community. A little math will tell policy makers how much money is being lost or conserved. Most communities lose much more than they conserve. That loss means more than just lost money. It is also a measure of potential local jobs. Ireland and California have both looked at job creation

from recycling. About 3 jobs per 1,000 people of population are waiting to be created from un-recycled materials in the US. In Boulder County, that would be almost 1000 additional jobs that could be created.

When locally recycled materials are used for manufacture, the local economy in enhanced. First, very little of the cost goes to transportation. This saves both money and energy. Second, the money spent is kept in the local economy. When money is kept in the local economy, it can be spent over and over again. This is the multiplier effect. The more recycled material is used locally, the greater the multiplier effect.

Health insurance is one of the significant inequities of our society. The middle class usually have health insurance, while the working poor usually do not. Some communities use health insurance coverage as an indicator not of health but of equity for this reason. It is a good linked indicator.

For children, lack of insurance is likely to impact their ability to succeed in school (Southern Regional Education Board, 1992). If they are unable to receive medical treatment, they are likely to miss more school and fall further behind. Since education is the single most significant factor in lifelong economic success, this inequity will have economic impacts for generations. Poverty has economic costs in providing services to the poor, but it also has social costs, such as those of crime.

As of August 2004, only 37% of eligible Boulder County children were enrolled in Colorado's Child Health Plus program. This means that almost 2500 of the county's children are at risk of not receiving needed health care and of not finishing school and being dependent on the community for some kind of support. Their children are more likely to be in the same situation. The WCED indicated inequities tend to propagate from generation to generation as do the social, economic and environmental costs associated with them (WCED 1987).

A number of communities use open space per capita as an environmental indicator. It is an easy number to collect. The US Census Bureau, however, asks about the area within 300 feet of the residence. Only 6% of Denver residents who live below the poverty line live within 300 feet of some kind of open space. If you are below the poverty line in Denver, it is more likely you will live in a commercial or industrial area (16%) or beside a major transportation line (12%) (HUD 1995). This is another inequity which creates social costs.

Open space is not just pretty, it is important to health. In as little as three to five minutes in open space, negative feelings of fear, anger and sadness are replaced with feelings of calm and pleasantness (Ulrich 1999). If open space isn't as accessible to lower income residents, they are denied the health benefits of open space. We know that health affects productivity. If one segment of the population isn't as healthy as they could be, it will affect the economy. This segment of the population often lacks health insurance and the costs of their treatment are borne by the community as a social cost.

If the community workforce isn't as productive as another community, it may affect whether new industry comes to the area. This will affect the local economy. Real estate values are less if there is less demand. If people are less productive and lose their jobs, they place a bigger burden on the social services. They spend less, so tax revenues are lower. Because the community is treating a social inequity, there is less money that can go to protecting the environment or developing the economy.

The amount of open space per resident is often used to indicate environmental quality, but this example illustrates that it may not be a good indicator. It might actually mislead policy makers away from the cause of an economic slump or higher healthcare costs because it does not consider the interactions of society, the environment, and the economy. The sustainability process has been looking at

the interactions for almost 30 years. If the community names its priorities, the research is there to develop the policy.

There is research, for example, to link air pollution to economic impacts (Ontario Medical Association 2000), including affordable housing when it isn't located close to the jobs. This means lower-income residents are forced to spend more time in traffic, potentially have more exposure to air pollution and have more health-related costs. This has already been identified as a social cost of inequity.

Foreclosures are frequently used as an economic indicator. A recent story in the *Washington Post* reports doubling in foreclosure rates in 47 states (Powell 2005). The same story reports that 40% of the foreclosures were connected to a lack of health insurance (Powell 2005). This is a social issue and the reason that some communities use health insurance as an indictor. Air pollution, foreclosures and health insurance coverage are linked indicators which can tell policy makers a great deal about the sustainability of the community. It can also be an indicator of equity.

A city can actively clean its air, if that is a community priority. In 1994, the trees of New York City removed an estimated 1,821 metric tons of air pollution, a service with an estimated value of $9.5 million (Nowak and Crane, 1998). Planting more trees will help clean the city's air and reduce the economic and social costs of air pollution.

Other studies show trees have an impact on crime too. By giving people a place to congregate, crime is less likely because witnesses are present. Trees and people-friendly landscaping give residents a chance to get out and enjoy the environment. This puts people outside on the street watching and drives criminals elsewhere (Kuo and Sullivan 2001a).

We know that the environment produces positive health effects (Ulrich, 1999). These health effects have social and economic benefits. Kuo and Sullivan (2001 b) found that positive health effects--reducing anger and frustration--also reduce violent crime.

We know that mental health services are important to keeping families together, so there is a link between trees and open space and keeping families together, provided that they have access. We know that keeping families together is a key to educational success, so trees are linked to that too. Educational success is a factor in attracting new business to an area, so trees are linked to that too!

Here we have a link between trees, health, health costs, productivity, crime, insurance rates, family unity, educational success, and economic expansion. If we look at where trees are and are not in our community, we may find that some neighborhoods are not getting the benefits of trees. That was the case in Denver (HUD 1995). If this is seen as a question of equity, it can be addressed as one. What the sustainability process will do is tell us if this is a concern of the community. If it is, then it will help develop policy and linked indicators to tell us if that policy is effective.

Conclusions

The sustainability process engages the community to look at the links between economic, social and environmental issues and how the community values each of them. The community must look at the relationships that research has uncovered, like foreclosures, health insurance and air pollution. Does that relationship fit with the community? If it does, is that a priority the community wants to address?

What about the relationship of trees, crime, mental health and educational success? Does that relationship fit the community? If it does, is that a priority the community wants to address? What if planting trees and creating open space will lower crime, decrease the costs of social services and increase graduation rates? Would that be a community priority?

This is what the sustainability process is about. When the interactions are treated together, resources are shared. Solutions to linked problems cost less than developing a solution for each one. Community involvement leads to development of community priorities. Then social, economic and environmental issues get equal consideration based on that consensus. The benefits are cost savings and a healthier community, economy and environment.

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